

The Pilot Brain

How Personality Affects
Decision Making

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wats2024
ORLANDO

Benchmarking “Safety”



Nurture vs Nature – are great pilots born or made?

1. Safety Culture Part 91 vs 135 vs 121
2. More Rules \neq Safe
3. The Part 135 company I flew for had two fatal accidents

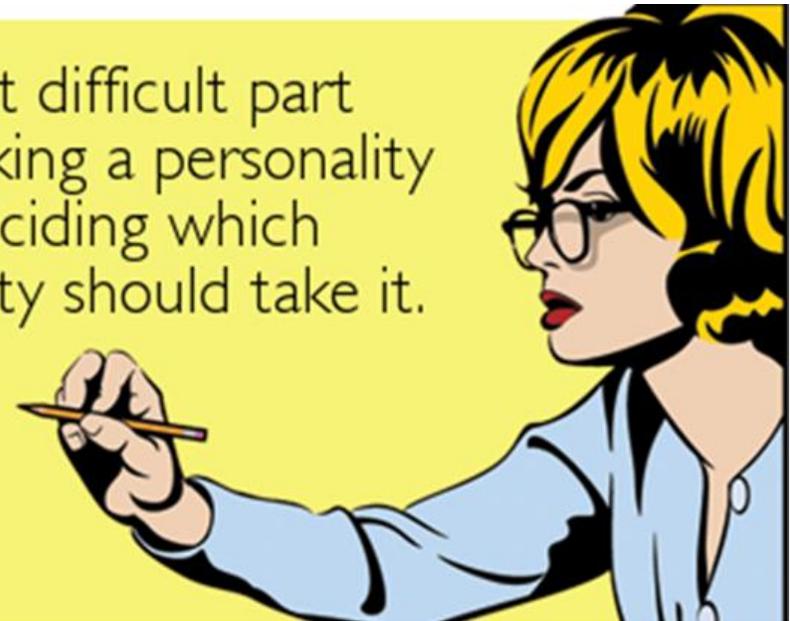


Personality Test for Employment?!

- **Aptitude** = Skills. Can you do the job
- **Personality** = Observable behaviors

What will a pilot do to pass a personality test...? Ironically, cheat.

The most difficult part about taking a personality test is deciding which personality should take it.



Free Trait Theory / Behavior: Home vs Work Persona

Free Trait Behavior = Innate personality traits

Many of us CAN and DO act out of character to serve a goal or culture

- We're all on a sliding scale
- You're not just an introvert vs extrovert – you're some **percentage** of these

This Free Personality Test

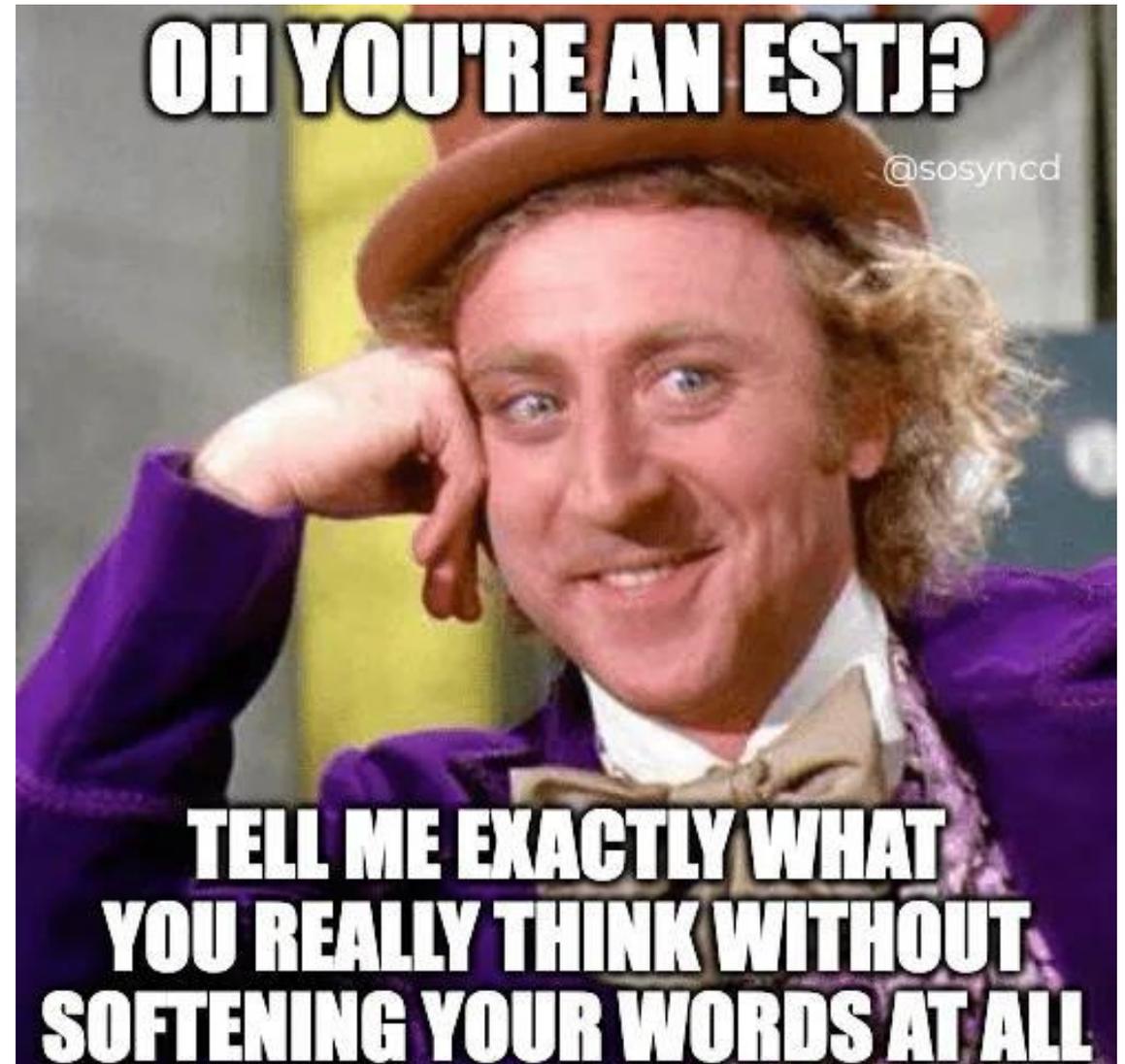
Reveals Your Most Annoying
Personality Trait

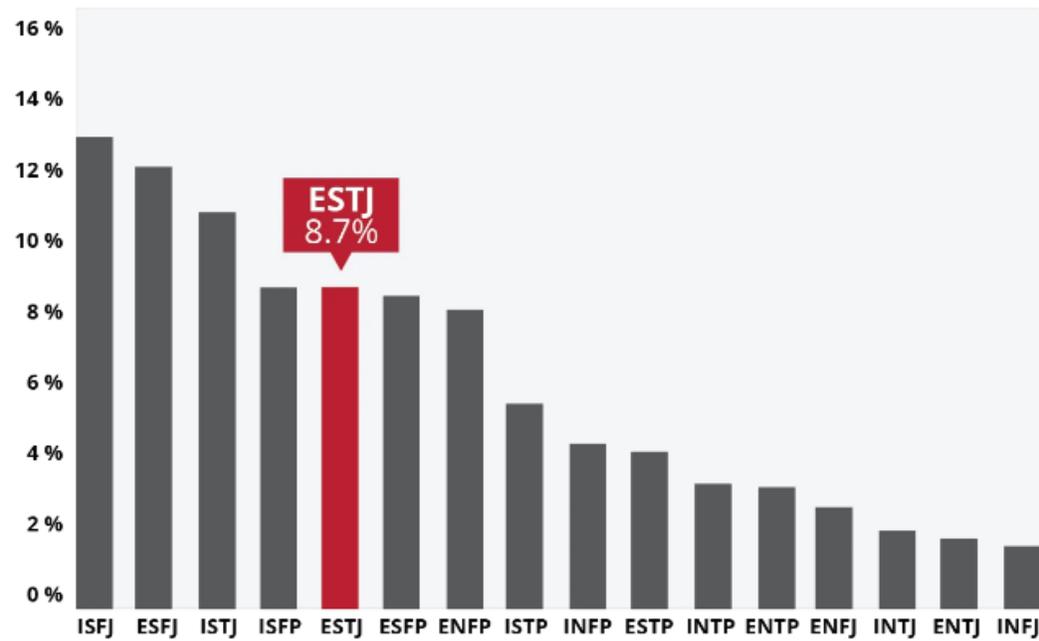


Meyers | Briggs = ESTJ

OBSERVABLE BEHAVIOR

- Extraverted: Pilots are mostly INTROVERTS who *exhibit* extroverted behavior
- Sensing: Focus on the here and now, rely on senses when processing data, don't want your opinion
- Thinking: Facts, logic, independent thinkers
- Judging: Prefer structure, order, hate change, absolute in decision making, like checklists, flows, CRM





37%
Female

63%
Male

Characteristics of ESTJs

- Energizing
- Communicative
- Open
- Practical
- Action-Oriented
- Objective
- Rational
- Logical
- Decisive
- Sticks to Plans
- Rigid

THEY MOST VALUE

Organization

THEY APPEAR TO OTHERS AS

Methodical, Focused, Planned

Ball State University

Aptitude + Personality =

Observable Skills

Common Thread



Spatial Orientation: 3D thinking. Superpower but during an emergency, tunnel vision. Pilot's Kryptonite. Startle Effect

Low Neuroticism: Low reaction. Ability to think calmly during stress or at least can mimic it. *Detached Compartmentalization. Divorce*

Unique Extraversion: Pilots tend to be introverts who display extroverted behavior. *Aggressive opinions, no problem pointing out a mistake or someone's weakness. Don't ask does this make me look fat?*

Self Confidence | Ego: It's a good thing. You need every pilot to believe they can get through any emergency. Conflict and power struggles with flight attendants, crew scheduling, copilot vs captain - CRM

Multi-Dimensional Thinking: Pull in multiple sources of information and act on it. Not multi-tasking but multi-inputting. Instrument Approach. Plan Continuation Bias. Runway Excursions

Our personality affects our primitive startle response!

- Mountain bikers startle me every time
- Which one are you?
- How YOU get out of your startle ?
- *Daniel LaBelle will show you some...*



The Screamer

The Boxer

The Self-Entitled

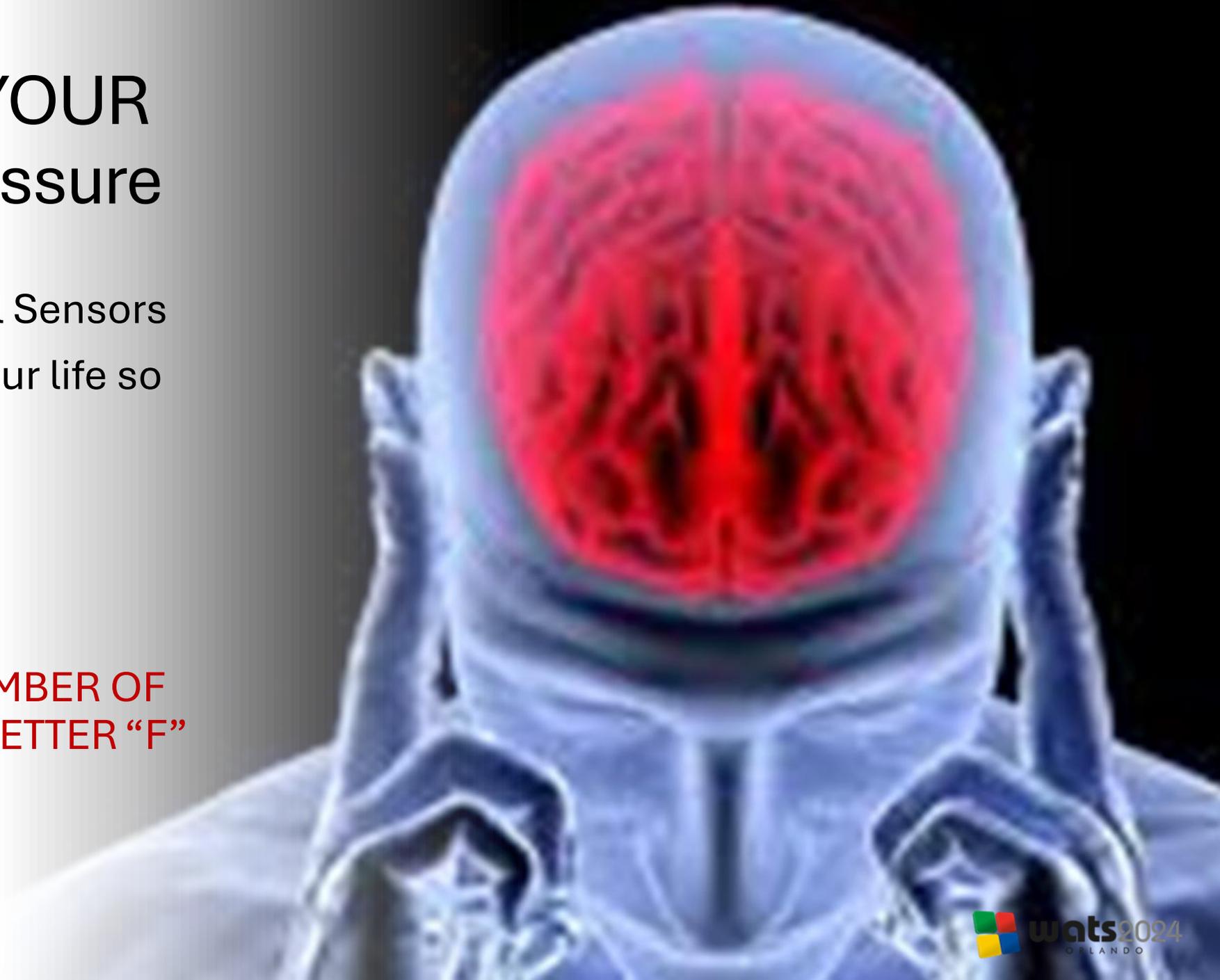


Let's Simulate YOUR Brain Under Pressure

Failure of Human External Sensors

You've been reading all your life so
this should be simple

1. 10 seconds
2. Read one sentence
3. I'll countdown
4. **JUST COUNT THE NUMBER OF
TIMES YOU SEE THE LETTER "F"**
5. Ready? Set.
6. Go!





FINISHED PILOT FINDINGS
ARE THE RESULT OF YEARS OF
SCIENTIFIC STUDY
COMBINED WITH
THE YEARS OF EXPERIENCE

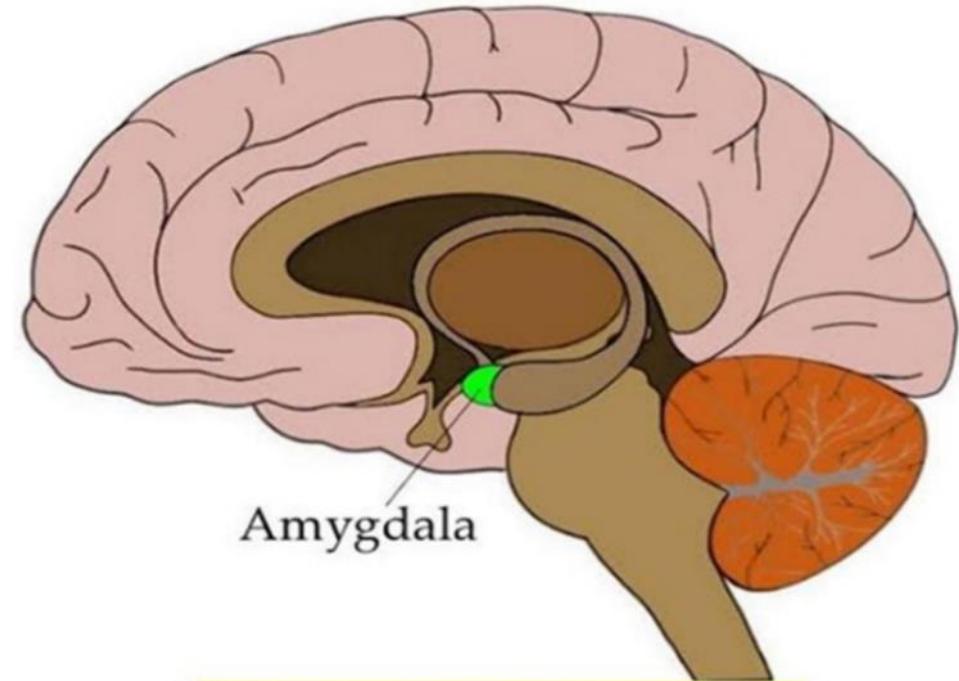


How'd you do?

FINISHED PILOT **F**INDINGS
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Why Can't You See the "F"s?

1. Brain skips what it thinks is not important
2. During emergency, the little things are very important
3. Tunnel Vision – know your breakout!



DID YOU KNOW

'Amygdala' is the part of the human brain that controls fear. If you remove it, you would lose any sense of fear.

Takeaway Tools

X-Ray Vision can melt Kryptonite = see the weakness, self awareness.

What is YOUR method for instantly getting out of a startle? Humor? Deep Breath? Tap?

- **Real Startle Effect = Take Away the Checklist in the Sim. Recurrent only. Fail Safe.**
- Continuation Bias = Brief a Go-Around
- Train Beyond the Mistake
- Pilot Monitoring has enormous power – train them on observing Startle Effect



No End, Just New Beginnings

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